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CLAIMS 1-10 (CANCELLED)

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11. (New) A scanning device for scanning register marks printed on a substrate, the device comprising;

at least one light source illuminating a lighting area on the substrate, the lighting area being an area on the substrate crossed by the register marks; the at least one light source that illuminates the substrate at the lighting area includes means for effecting at least one modulation of at least one of intensity and color of the illuminating light during simultaneous or sequential scanning of at least two of the register marks;

a photosensitive element comprised of a plurality of pixels for receiving traveling images of the register marks wherein the traveling images are comprised of a plurality of portions that are successively scanned according to a predetermined scanning rate and the pixels produce electric pulses;

a microprocessor connected with the at least one light source for controlling the lighting of the light source and for controlling the electric pulses produced by the pixels.

12. (New) The scanning device of claim 11, comprising at least two of the light sources which illuminate the substrate on the lighting area, with each of the light sources illuminating a plurality of portions of each of the register marks which portions are positioned to be successively scanned by the photosensitive element and each light source providing a respective modulation of at least one of intensity and color during the scanning of the register marks.

13. (New) The scanning device of claim 11, further comprising an optic disposed between the lighting area and the photosensitive element for directing light reflected from the lighting area to the photosensitive element.

14. (New) The device of claim 11, wherein the microprocessor is operable for causing the modulations of the illumination of the lighting area to be performed in synchronism with the scanning rate of the individual portions of the images.

15. (New) The device of claim 11, wherein the microprocessor is operable for causing the modulations of the illumination of the lighting area to be performed in synchronism with the scanning rate of each register mark.

16. (New) The device of claim 11, wherein the microprocessor is operable for causing the number of modulations per unit time to be the same as the number of portions of images scanned at the same time.

17. (New) The device of claim 11, wherein the microprocessor operates the light source in continuation of different modulations, and the lighting area is subject to illumination variations according to successive repetitions of at least one lighting cycle programmed and controlled by the microprocessor.

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18. (New) The device of claim 17, wherein the microprocessor is adapted for establishing that during a lighting cycle, the amount of either different colors and intensity applied to the lighting area are proportional to the number of register marks of different colors that are simultaneously scanned.

19. (New) The device of claim 17, further comprising the light source supply for each color of the register marks supplies at least one of a light of the wave length ranging between 380 nm and 780 nm and an intensity between 5% and 100% of the maximum intensity for improving the contrast of the register marks compared to the substrate at the lighting area.

20. (New) The device of claim 11, wherein the photosensitive element comprises a plurality of pixels which are sensitive to at least one wave length of at least one printed color.

21. (New) The device of claim 11, wherein the microprocessor is operable such that with successively scanned portions located next to each other, the portions covering at least the entire surface of the register mark on the substrate may be simultaneously scanned.

22. (New) The device of claim 12, wherein the successively scanned portion of the images on the substrate are geometrically shaped and are of a width ranging between 0.1 nm and 5 mm.

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